

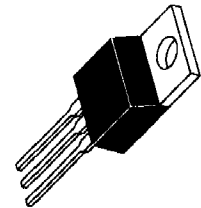
## Silicon Controlled Rectifiers Reverse Blocking Triode Thyristors

... designed primarily for half-wave ac control applications, such as motor controls, heating controls and power supplies.

- Glass Passivated Junctions with Center Gate Geometry for Greater Parameter Uniformity and Stability
- Small, Rugged, Thermowatt Construction for Low Thermal Resistance, High Heat Dissipation and Durability
- Blocking Voltage to 800 Volts

**2N6394  
thru  
2N6399**

**SCRs  
12 AMPERES RMS  
50 thru 800 VOLTS**



(TO-220AB)

\*MAXIMUM RATINGS ( $T_J = 25^\circ\text{C}$  unless otherwise noted.)

Rating	Symbol	Value	Unit
Peak Repetitive Forward and Reverse Blocking Voltage <sup>(1)</sup> (Gate Open, $T_J = -40$ to $125^\circ\text{C}$ )	$V_{DRM}, V_{RRM}$	50 100 400 600 800	Volts
RMS On-State Current ( $T_C = 90^\circ\text{C}$ ) (All Conduction Angles)	$I_T(\text{RMS})$	12	Amps
Peak Non-Repetitive Surge Current (1/2 Cycle, Sine Wave, 60 Hz, $T_J = 125^\circ\text{C}$ )	$I_{TSM}$	100	Amps
Circuit Fusing ( $t = 8.3$ ms)	$I^2t$	40	$\text{A}^2\text{s}$
Forward Peak Power	$P_{GM}$	20	Watts
Forward Average Gate Power	$P_{G(AV)}$	0.5	Watt
Forward Peak Gate Current	$I_{GM}$	2	Amps
Operating Junction Temperature Range	$T_J$	-40 to +125	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-40 to +150	$^\circ\text{C}$

### THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance, Junction to Case	$R_{\theta JC}$	2	$^\circ\text{C/W}$

\*Indicates JEDEC Registered Data.

1.  $V_{DRM}$  and  $V_{RRM}$  for all types can be applied on a continuous basis. Ratings apply for zero or negative gate voltage; however, positive gate voltage shall not be applied concurrent with negative potential on the anode. Blocking voltages shall not be tested with a constant current source such that the voltage ratings of the devices are exceeded.

